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No. 8.

CATALOGUE

OF THE

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ORGANIC REMAINS,

WHICH, WITH OTHER

GEOLOGICAL AND SOME MINERAL ARTICLES,

WERE PRESENTED TO THE

NEW-YORK

LYCEUM OF NATURAL HISTORY,

IN AUGUST 1826,

BY THEIR ASSOCIATE,

SAMUEL L. MITCHILL,

Honorary President of the Parisian Branch of its Linnæan Society at New-York; Lecturer on Botany and Vegetable Physiology to the Horticultural Society; Member of the American Geological Society at New-Haven; of the Academy of Natural Sciences at Philadelphia; of the Western Museum Society at Cincinnati; of the Linnæan Society of New-England; Honorary Fellow of the Lyceums at Hudson, Delaware, Catskill, and Pittsfield; of the Agricultural Society in the Bahama Islands; of the Literary and Philosophical Society at Montreal; and of the Philo-Phusian Society in Brown University; Correspondent of the Society for Promoting Natural and Physical Sciences at Buenos Ayres, &c. &c. &c. &c. &c. &c.

NEW-YORK:

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1826.

CATALOGUE.

N° I.

Lowermost Shelf, beginning on the right.

1. Petrified occiput, and clints of horns, from New Madrid, on the Mississippi; cast up by one of the earthquakes in 1811–12; supposed to belong to the North American bison, or buffalo.—Captain Hill.

2. Left side of the lower jaw, with the symphysis of the chin, and two grinders, belonging to a fossil mammoth, found at Southhold, on the north side of Long-Island, between high and low water mark, though they have been satisfactorily traced to Kentucky.—My own purchase.

3. Joint of a whale's back-bone, with fragments of ribs, covered in part by a ferruginous incrustation, containing scallops, oysters, and other organic remains of the salt water: from the bank of York River, Virginia, where it is reported there are many other relics of a similar kind.—Captain Mix and E. J. Townsend.

(*a*) Impression of a huge scallop, and other shells, in clay. Nottaway River, Virginia.

4. Considerable portion of the tibia of a mastodon, from Louisiana, below New-Orleans.—Jaspar Lynch.

5. Vertebral joint of some cetaceous animal from the bank of James' River, Virginia.—Captain Prior.

6. A collection of silicious fossils, from the Honourable Captain Redwood of Antigua; consisting of

(*a*) Consummate red jaspers, varied with pale agate.

(*b*) Wood and bark of the tamarind and other trees, completely agatized and converted to flint: one of the specimens more than a foot in diameter.

(*c*) Madrepores of numerous species transformed to agate, or semipellucid silex, of remarkable beauty and variety. The view of them in their exquisite forms and fractures, excites a suspicion that they are not conversions from lime; but on the contrary, original formations from radiary animals secreting silicious matter for their habitations.

(*cc*) An elegant agatized terebratula, from the coast of Coromandel; from the Baron Lescallier, late Consul General of France; accompanied by a note in the handwriting of that erudite, modest, and accomplished man.

7. Various samples of agatized, or silicified wood, from other sources.

8. A piece of the buhr-quartz of Georgia, recommended for mill-stones, and imported for the preparation of flour from wheat to New-York. It is filled with the shells of marine molluscas, which wear away fast by attrition, and render the bread gritty.

9. A portion of red sand-stone, from the secondary formation of Belleville, near the Passaic river, ten miles from New-York city; containing an elegant impression of a fern, ten inches long.

10. A mass of sand-stone from Chenango county, New-York, exhibiting in its fracture, a figure that has been called the screw-auger by the discoverers, but which, on examination, appears to be an extinct species of the terebrum, or screw-shell.—U. Tracy.

11. An instructive assemblage of madreporites in fetid lime-stone, from Caledonia, New-York.—Drake.

12. Terebratulites, and other rare articles, from Westchester county, New-York, at Mount Pleasant; discovered ten feet under ground. Large article, full of the impressions of pectinites, and other relics.

13. Other pectinites and terebratulites.

14. Yet other impressions of the same kind.

15. A box, containing specimens illustrative of the geology of Nantucket; consisting of two species of univalve

and five species of bivalve shells, dug from a depth of sixty feet and more; with fragments of the crumbling and decomposing gneiss-rock, lying in boulders sixty feet below the surface: with N. Comstock's letter on the appearances, on digging Obed Mitchell's well.

16. Venuses, buccinums, and other molluscous remains, from the maritime border of Virginia.

N° II.

Second Shelf from the bottom.

An extensive and characteristic collection of the fossils belonging to the region south of the Raritan river, and extending from the base of the Neversink Hills to Bordentown, near the Delaware, in a direction from N. E. to S. W. From this singular tract have been derived the following articles, to wit:

1. Enormous gryphites, thick and ponderous beyond example, weighing from six to seven pounds, and of great variety, filled with marl formed from the ruins of other testaceous creatures.

2. Belemnites, four or five inches long; or, more properly speaking, their crystallized nuclei, or cores.

3. Joints of the vertebræ, appertaining to cetaceous animals.

4. A cervical joint belonging to a horse.

5. Part of the leg (tibia) of a mastodon.

6. Broad elliptical substance, evidently the intervertebral material, or epiphysis of a whale.

7. Several choice and instructive specimens of the jaw-bone, and its excrescences, in the form of teeth; derived from a reptile of the same kind with that wonder of Europe, called the Animal of Maestricht, or Antediluvial Crocodile.

8. The sandy and marly mass that once filled up the cavity in a shell formerly inhabited by a huge nautilus.

Since the occupation of the shell by the earthy materials, after the death of the animal, the shell has crumbled down and disappeared, while its packing or filling remains.

9. Teeth of the horse, in sound condition.

10. Moulds in marl of turbos, buccinums, and other univalve shells.

It ought to be remarked that this region, reported to be from two to five miles wide, is one of the most memorable on the globe. If, in addition to the preceding enumeration, it is added, that singular baculites (here)—vertebræ of sharks, and their teeth (here)—pipes of clay, which men have used for smoking (here also)—metallic buckles and tongs, and numerous other natural and factitious things, have been found by the proprietors or agronomes, while exploring the strata of their farms for manure,—it would seem that a belt or zone of earth so memorable as this, is worthy of further exploration. The Reynolds's, the Vanderveers, the Crawfords, the Teneycks, the Scotts, and the Bennetts, among others, deserve worthy notice on this occasion.

11. Lignite, or black mineralized wood; from a depth of fifty feet below the surface: right bank of the Raritan, New-Jersey, Essex county.

12. Sharks' teeth, some black, some white: Cranbury, near Princeton.—Professor Green: with a singular semi-globular substance containing shells.

13. Amber, with shells adhering, and an accompanying belemnite.—Crosswick's Marl Pit, New-Jersey.

14. A collection of detached shells, such as various kinds of clams, oysters, gryphæas, volutes, turbos, buccinums, &c., from the neighbourhood of Fort Claiborne, along the river Alabama, where they form thick and extensive layers, not yet hardened into rock.

15. A piece of petrified wood, from the same region.

16. A large and interesting block of live oak, apparently changed to silicious stone.

17. Two other oceanic relics, in lime-stone; one of them apparently containing large entrochites, and the other a water-worn madrepore, shaped almost like a human thigh-bone.

N° III.

Third Shelf from below.

1. An extensive and instructive specimen of silicified wood, from Alabama; remarkable, among other circumstances, for bearing on its surface barnacles and flustras, proving it to have lain in the salt water.

2. A mass of incipient chalk, from the same region. The shells can be seen in their progress toward disintegration, and of changing to the calcareous carbonate. A thin-shelled oyster seems to be the principal material.

3. A lump of chalk, from the same stratum, where the shells have lost more of their original form, by conversion to friable earth.

4. A group of echinuses, or sea-urchins, from the chalk formation of Tombigbee.

5. A group of gryphæa shells, not consolidated, from the Chickasaw country, where they are said to be very numerous.

(*a*) Sharks' teeth, and impressions of shells. Tombigbee, vicinity of Fort Stevens.

(*b*) An irregular mass, whimsically figured, showing the manner in which chalk runs into the nodular form of flint.

(*c*) Pieces of shells, concreted with shelly sand; showing the constitution of the Bahama islands and shoals; dug out of a well forty feet deep, at Nassau, in New-Providence island.—M. Hall.

(*d*) Pieces of shells, from the shell banks at Rockaway, south side of Long-Island, where the clams were brought up by the native Indians for food: large heaps yet remain.

6. A box, containing samples of the pond marl in Ulster county, New-York, where the skeletons and bones of the mastodons are sometimes found. Marl of the shells of fresh water molluscas.

7. Calcareous marl, from a like origin at Dover, Dutchess county, New-York.

8. The like, though of a browner hue, from Sharon, Connecticut.

The shells of which these specimens consist, decaying and decayed, are two species of planorbis, two of spirorbis, one of succineum, and some others.

9. A bottle of testaceous sand, showing how shells worn down by the waves are, in the process of preparation, to form earthy strata. From the oceanic shore of Long-Island.

(*a*) Salt water mud and shells. Long-Island.

10. Cast in plaster, from Dr. Hayden of Baltimore, of an elephant's tooth, found on the eastern shore of Maryland.

11. Singular boat-shaped tooth of an elephant, found on Bennett's farm, Middletown, New-Jersey; from the region where the relics on the second shelf were found.—Scudder.

12. Two teeth of the great mastodon, one large and one small; found in alluvial soil near Natchez.—Dr. Freiot.

13. Grinder of an elephant, said to be American; but locality not known, though the specimen is in excellent condition.

14. Huge tooth of an elephant, brought by A. Vache from a voyage beyond Cape Horn, and reported by him to have been found on some (to him unknown) island in the Pacific ocean. Good condition, with the exception of a fracture at one extremity.

15. Sound tooth of an elephant from Tuscany, in Italy; received as an offering of peculiar value, from the late learned and incomparable Dr. Albers of Bremen, and believed by him to have belonged to one of the African quadrupeds of war which crossed the Rhone, the Alps, and the Po, with Hannibal of Carthage.

16. A set of mastodon teeth, sound, though somewhat fractured; found by ditching on E. Suffern's farm, 32 miles north of New-York city, and 11 miles west of the Hudson River, in New Antrim, Hempstead town, Rockland county, New-York.

17. A tooth of the enormous mastodon which, with Peter S. Townsend, Silvanus Miller, and other friends, I assisted in disinterring at Chester, in Orange county, 53 miles north of New-York city, during the year 1817.

18 and 19. Decayed ivory of the tusks, which I received as Townsend handed them up from their muddy deposit; the longer of which measured nine feet as it was raised, while the other was shorter. I refer to the chief portions of the skeleton, presented by the company on that memorable occasion to the Lyceum, for the fact that the *right* tusk was less elongated than the *left*, and more blunt or truncated than this. The dexter prong has plain proof of having been more worn, by the creature's exercise, towards a stump, and as manifest indication that the owner had a preference to what the drivers of animals call the *off-side limbs*.

20. Tusk of a young mastodon, from Kentucky, five inches long, and compact; found at Neville, in a tumulus with human bones, as the donor, Dr. Meigs, certified.

21. Fragments of bones, apparently belonging to cetaceous animals, from Old Point Comfort, Chesapeake Bay.

22. Entrochites in white flint. Green Brier county, Virginia.

23. Bones of land animals, bark of trees, vertebræ of sharks, and teeth of the same. Richmond, Virginia. Chevallie's well, from the depths of seventy-five to one hundred feet.

24. A dozen of the curious fossils, by some compared to a nut, and by others to a flower, and yet by others to an echinus. Agatized, and perfect. Kentucky. About the size of hazelnuts.

25. An agatized echinus, about the size of a pigeon's egg. From Kentucky.

26. Several trays, containing moulds of screw-shells, entrochites, and terebratulas, from various localities.

27. A white orthocerite, in dark lime-stone. York, Upper Canada.

28. The two valves of an oyster, complete, from a stratum of marine shells. Digges's Point, river Potomac.—General Brown.

29. A mass of clay, or argillaceous marl, containing charcoal; or the specimen may be termed fossil charcoal, bedded in clay. From Digges's Point, Potomac. Same locality with the preceding article, though lying twenty feet below the stratum of marine shells, and fifty-seven beneath the surface.—General Brown.

30. Two specimens of the univalve and bivalve marine shells, compacted into rock, with littoral sand. From Upper Marlborough, Maryland, near the Patuxent River, Washington city, and Annapolis.

31. Large pectinite, with other oceanic relics, in wacke, with lac lunæ. From the Peruvian Andes, fifteen thousand feet about the present level of the sea, where it was found by Don Pedro Abbadia, and forwarded.

33. A series of specimens, affording an instructive view of the orthocerites, chain madreporites, and various molluscous relics. From Lake Huron.—Major Delafield.

34. A long piece of petrified wood, covered with silicious crystals. From Weymouth, England.

35. A polished specimen of marble, abounding in encrinites. England.

35. Petrified wood, by calcareous carbonate. From Sullivan town, Madison county, New-York; part of a tree that had undergone such conversion.—General Pierre Van Cortland.

36. A madreporite, curved like a ram's horn, of unusual figure and magnitude. Coeyman's, Albany county, New-York.

37. Other specimens of petrified wood, from different localities: one called hickory stone, from Calvert county, Maryland; another from Mexico, being a piece of petrified oak, called there *sughero*, or the cork tree.—Professor Del Rio.

38. A tray of petrified madrepores, called petrified buffalo horns; believed to have been found at the falls of Ohio.

39. Two pieces of bone, apparently of some cetaceous animal; from a stratum abounding in marine shells, 60 miles from Charleston, S. C.—Dr. Thomas.

40. A curious piece of petrified wood, from the Chocktaw country, 100 miles east of Natchez; one end of which is black, and the other white.—P. C. Goercy.

N° IV.

The fourth Shelf.

1. Half a dozen specimens of the clay slate, or blaes, abounding with impressions of ferns and palms, in the coal districts of Pennsylvania.

(*a*) Part of a large frond, overlaying the anthracite of Berks county, near the sources of the Schuylkill.—Mrs. Bailey.

(*b*) Saginaria and filices, from the superincumbent rocks in the coal tract near Wilkesbarre.

(*c*) Cryptogamic impressions in the coal slate of Pittsburgh.

2. A nodule of argillaceous iron, about the size of a small loaf of bread; disclosing, by being split into two parts, the stems and leaves of ferns, very distinctly, on its fractured surfaces. Derbyshire, England.

3. A piece of calcareous rock, raised from the bottom of the sea, on weighing anchor, near one of the Bahama keys. It abounds with shells, such as bullas, scallops, and

others, and illustrates the formation of modern strata from shells.—Wetmore.

4. Another fragment of the like.

5. A third of the like.

6. Rock, composed of comminuted shells, worn small by the waves, and concreting.

7. An extensive and selected series of specimens, from Huntsville, Alabama, and its vicinity; by Dr. Samuel Brown; consisting, among others, of

(*a*) Entrochites, plain and characteristic.

(*b*) Terebratulites, of more than ordinary size, though very distinct.

(*c*) Encrinites, of very peculiar forms.

(*d*) Cardites, fine and plain.

(*e*) Fossils of several sorts, too peculiar to be classified by the writer of this list.

(*f*) Madreporites; some of which are of very singular shapes.

These specimens are chiefly bedded in agate, or flint; and they are so curious and diversified, as to afford rare matter for investigation.

8. A fossil oyster. Ontario county, New-York.

9. Another and a larger oyster, with pectinites adhering. Locality not remembered.

10. Two pieces of petrified wood; from Loch Neagh, Ireland.—S. Owens.

11. Petrified wood; part of the black walnut tree in the Illinois river.—Governor Cass.

12. A polished slab of lumachella marble, from Italy.

13. Singular concretion of quartzy gravel, &c. Coast of Peru.—Rodgers.

14. Huge clam-shell, with a little oyster adhering. England.

15. Nodule of flint; exhibiting the singular spectacle of an agatized echinus, moveable round and round on its axis, within a cavity; and another one of the same kind, fast in its hole. Exceedingly uncommon. England.

16. Vertebral joint and two teeth of a fossil animal, conjectured to have been a sea serpent, or an astonishing shark; discovered by digging for a plantation-improvement in the ground adjoining Meherrin River, at Murfreesborough, North Carolina. They were brought by Captain Neville, who, with Dr. Forster, measured the joints of the vertebral column, as they adjusted them from their dispersed situation where the laborers had thrown them about. By putting the joints of the back-bone in a row, they measured thirty-four feet; and by adding a reasonable allowance for the head and tail, the creature must have been at least forty feet long. The bones and teeth lay in a stratum of water-worn pebbles and sand, situated about twenty feet above tide-water, and mingled with an abundance of large oyster and cockle-shells. The distance from the ocean at Currituck, the nearest point, is about 70 miles. The bone of the back weighs twelve pounds and a half. The teeth, which are three-sided, with a base of four inches and a half, connected with sides of six inches, weigh sixteen ounces each. It has been supposed by some zoologists and geologists, that these uncommon relics indicate a connexion really with the hydrophis, plature, enhydros, laticauda, or some other snake of the ocean, rather than with the squalus, or any other cartilaginous fish.

(*a*) Fossil jaw and teeth; the teeth growing out of the jaw, as in the fossil crocodile of New-Jersey. From Salisbury, N. C.: with a recent specimen of the like, found on the shore of Lake Huron. (See Shelf II., No. 7.)

17. Four enormous oyster-shells, from the rock of Lisbon.—Captain Riddell.

18. Two molded terebratulites, from Kentucky.—M. Beattie.

19. Very singular fossil echinus; figured and described in Med. Repos. vol. ii. p. 416. Georgia.—D. Meriwether.

20. Elegant favosite, with some of the cells empty, and the others filled. Near the mouth of the river Illinois.—Major Long.

21. Remarkable nodule, or loose-rounded lump, fourteen inches long and eight inches broad; dug from one of the hills near Corlaer's Hook, in the seventh ward of New-York city; and disclosing, by its longitudinal fractures, cardites and pectinites, of remarkable size and distinctness. —J. M'Comb.

22. A mass of marine concretions, found near St. Regis, River St. Lawrence, near the line of Lower Canada.—Professor Ellicott.

23. Several specimens of petrified wood; from Samuel H. Smith's land, two miles north of the capitol, at Washington city.

24. Petrified stump of a pine tree standing in water. South Carolina.

25. Large fragment of a fossil terebrum, or screw-shell. Mexico, Del Rio. (See Art. 10, Shelf No. I.)

26. Organic remains, eight in number, from Becraft's mountain, one mile and a quarter S. E. of the Court-house in Hudson city, and five hundred feet above the level of the river; consisting of madreporites, flustrites, pectinites, terebratulites, and some other species, as they have been broken from the solid stratum of rock, in detached pieces. —Colonel Darling.

27. A splendid slab of the marble from the stratum of Becraft's mountain, abounding in the aforesaid and other relics; nearly two feet long, and more than one foot broad; forming an elegant and uncommon lumachella marble, named the Darling marble.

28. Polished lumachella marble, from the quarry at Sodus, New-York, south side of Lake Ontario.

29. Encrinites, in polished marble; from Cherry Valley, New-York.—Governor Clinton.

30. Polished lumachella, with shells, encrinites, and entrochites. Hurley, Ulster county, New-York.—I. C. Hart.

31. Polished marble, filled with remains of molluscas and radiaries; from a quarry near the Juniata, Penn., six

miles below Huntingdon. The stratum is underlaid by indurated quartzy sand; has an inclination of about 85° from the horizon, and the dip is towards the S. E.—C. Loss.

N° V.

The fifth Shelf.

1. Chalk from Brighton, in England, penetrated by the pholas dactylus, that loves to inhabit the solid rocks, which it excavates; with shells of the pholas itself.—Goodsett.

2. Calcareous rock of Minorca, inhabited by the mytelus lithophagus.—Surgeon Jackson, U. S. Navy.

3. A bottle, containing preserved individuals of the mytelus just mentioned, in a condition fit for dissection. Same locality.—Lieut. Cocke, U. S. Navy.

4. An elegant pair of cockle-shells, from Thanet island, Kent county, England; filled with chalk, and found in a cretaceous stratum, three miles from the sea, and one hundred and twenty-seven feet below the surface.—Ramage.

5. Superb specimen of encrinites and entrochites, in calcareous carbonate. England.—Major James Mitchell.

6. A notable fossil, containing entrochites, madreporites, terebratulites, pectinites, and other articles; said to have been found in Wales.—Mrs. Jayne, wife of Capt. Jayne.

7. Seven specimens from Havre-de-Grace, in France, or brought by a ship from that port; being carbonates of lime, containing madreporites, buccinites, terebrites, cardites, &c. in high preservation.

8. Sixteen pieces, from the rock of Gibraltar.

(*a*) Two of the original, or primitive rock, constituting that promontory of Europe; and one of them carrying the lichen, or cryptogamous vegetable natural to it.

(*b*) Parcels of the watery deposition in the hollow called Saint Michael's Cave; some of them in the rough, and others neatly polished.

(*c*) Select articles from the cavern just mentioned; containing organic remains of

A. The snails and other testaceous relics of the locality.

B. Of the monkeys and other land remnants of the spot.

C. Of, among other memorable remains, a tooth, in admirable preservation, of the Barbary ape, or baboon.—C. A. Davis and Miss Crawford.

9. The extraordinary fossil, termed by the finders the *petrified ram's horn;* from the Helleberg, 12 miles N. W. of Albany; bedded in a silico-calcareous rock, a portion of which adheres to the relic. It has been decided that it is an enormous, probably an extinct spirula. The longest diameter is about nine inches, and the smaller six, or thereabouts. (See the particulars, with a figure, in Medical Repository, vol. x. p. 350.)—De Witt.

10. Samples of petrified fish.

(*a*) An admirable specimen from the mountains of Rio Janeiro, in Brazil, six inches long, by more than two inches broad. In calcareous rock.—Vachè.

(*b*) A complete form of a disinterred fish, from the famous ichthyoparous mountain in the neighbourhood of Verona, Italy; six inches long, three inches broad.—Miss Nicholson.

(*c*) Two specimens of the fossil impressions of fishes, from the vicinity of Connecticut River.—Bruen.

(*d*) The semblance of a petrified fish, belonging to a species of tetrodon, or bellows fish; found on the shore of Sandy-hook, near the base of the Neversink Hills; but which appears to be (curiously enough) wood turned to stone, after having been perforated by the pipe-worm, or teredo navalis, and the cavities afterwards filled up by the yellowish-green material of the soil.—Captain White.

(*e*) A rough specimen to illustrate the preceding.

11. Bones of land animals, in calcareous rock.

(*a*) The tibia of some brute animal, encrusted in fine stone marl.

(*b*) Some broader bone, with its cells, of an unknown quadruped, in a similar calcareous cement.

Localities of both, though good specimens, somewhat uncertain.

12. Ammonites, of various sorts and derivations, to wit:

(a) Neat little spirula, from Seneca town, Ontario county, New-York, seven miles S. W. of Geneva village.—Post.

(b) This, which the critics will call a spirula, is in fine style; from the calcareous rocks near Plattsburgh, N. York. Governor Tompkins.—(See preceding article, No. 8.)

(c) A less distinct specimen, though more of an ammonite; from Glenn's Falls, Hudson River, above Fort Edward, &c. &c.: diameter more than three inches.—Milbert.

(d) An ammonite, measuring five inches one way, by three inches the other; disinterred at Cahawba, in Alabama county; with sinuated surfaces and jagged edges.—Heustis.

(e) Traces of the spire belonging heretofore to an ammonia-shell. Sacket's Harbour.—A. Sackett.

(f) Another like it, though in another sort of rock. Locality not noted.

(g) Fine spire, almost three inches in diameter, bedded in wacke. Place uncertain.

(h) Pretty little ammonites; from some place in Scotland.—J. Mitchell.

13. A lot of twenty-two articles, of the ammonite family; chiefly from Whitby, in Yorkshire, England; bedded mostly in aluminous slate and argillaceous rock: fifty miles north of old York city:—of the following denominations, namely:

(*a*) Ammonites, as broken out of the matrix.

(*b*) The matrix of rock from which the ammonite was separated.

(*c*) Ammonites ground away and polished, so as to show the internal structure, and the chambers filled with spar, &c.

(*d*) Ammonites, consisting of pyrites, or the sulphuret of iron; in beautiful condition. Some of them were taken from a depth of two hundred feet under ground.—Thompson and Lester.

14. Fossil spirorbis, or snail; from a bog near Dublin, in Ireland.—J. K. Rodgers.

15. Fossil bivalve mollusca; from the black marble of Galway, in Ireland; apparently a mytilus.—J. Dick.

16. Another Galway specimen; being pyrites, or splendid sulphuret of iron, in crystals, distributed over the surface of a cardite.—J. Barnes.

17. Enormous scallop-shells, in wacke, four inches and a half in diameter. North-west Coast of America.—Reynolds.

18. Curious concretion of small mussel-shells, in wacke. Columbia River, North-west Coast.—The same.

19. Part of a belemnite, nearly five inches long, and more than an inch in diameter. Weymouth, England.

20. Polished marble, displaying fine forms of madrepores. England.

21. Fossil clam, two inches and a half broad; from a depth of two hundred feet beneath the surface. Point Petre, Guadaloupe.

22. Beautiful impressions of leaves in clay. Locality not noted.

23. Petrifactions of the cypræa pediculus, and other molluscas, in compact lime-stone. France.

24. Celleporite, in calcareous spar. Curious. Island of Jamaica.

25. Fresh water and oceanic shells; from Upper Georgia, where they form, in a loose and detached state, extensive strata.—D. Meriwether.

26. Huge cone of a terebratulite, resembling the heart of a calf. Chalky. Locality not known.

27. Shell, in argillaceous iron-stone; bivalve; four inches wide. Dumbarton, Scotland.

28. Bivalve shell, apparently a cardium in agate.

29. Cardite, from Matanzas, in Cuba; two hundred feet below the surface.—Captain Noyes.

30. Silico-calcareous incrustations. W. Coast of Peru. —Rodgers.

31. A suite of fossil specimens, amounting to more than thirty; illustrating the geology of Crefeld, near Dusseldorff; consisting of pectinites, ostræites, belemnites, and echinites; among them a very peculiar calymene, and figures of the skull-shell.—From F. W. Hœnighaus.

32. A collection of molds, from different quarters, of clams, cockles, myas, &c.; in good preservation.

33. Two petrified madrepores, called buffalo horns. Indiana.

34. A double fossil oyster, and various other small petrifactions, from various places.

N° VI.

The sixth Shelf.

1. A COLLECTION of orthocerites, madreporites, &c., in lime-stone; illustrating the geology of the Black River country, near Sacket's Harbour.—Judge Sackett.

2. A superb slab, filled with pectinites. Brownville.— Major General Brown.

3. A set of specimens from the cliffs of Selma, up the river Missouri; consisting of

(*a*) Fossils—such as madreporites, and other oceanic remains, in abundance; favosites, &c.

(*b*) Minerals—such as galena, or sulphuret of lead; terra ponderosa, or sulphate of barytes; crystrals of quartz, in clusters.—Colonel J. Smith.

4. Eight trilobites, from different localities.

(*a*) One from Canandaigua, on the highest ground, eleven feet below the surface; in lime-stone; in fine preservation.—F. Granger.

(*b*) Trilobite of a circular figure, nearly three inches in diameter. Anticosti island, gulf of St. Lawrence.—F. Blanchet of Quebec.—Pieces of the white marble composing the rocks there, filled with encrinites, and excavated by pholases.—The same.

(*c*) Two trilobites, from Munsey, Pennsylvania, in singular attitudes; especially one, that adheres to a ball of pyrites, about as large as a musket shot.—Dr. Reynolds.

(*d*) Trilobite, rolled up; from a lime-stone cavern in Pike county, Pennsylvania.—King.

(*e*) Anterior part of a trilobite. Jefferson county, New-York.

(*f*) Neat little specimen. St. Louis, Missouri.—De Camp.

(*g*) Black trilobite, with the tail doubled under. Locality not known.

5. Two pencil drawings of the Kingston, otherwise called the Bleecker trilobite; length three inches and a quarter, breadth one inch and three quarters.—S. Akerly.

6. Very peculiar crustaceous creature, in lime-stone. Indiana.

7. Three specimens of petrified wood, the mineralizer being carbonate of lime.

(*a*) One of pine; from Chitteningo Creek, New-York.—McLean.

(*b*) The other, hemlock; from Osquake, New-York.—J. Macauley.

(*c*) A third, white cedar; from Marcellus, Onondago county.—Humphreys.

8. Moss, incrusted by carbonate of lime. Very neat.

9. A more ample specimen of incrusted moss; from the river Evan.—W. Carll.

10. The sand tree, or arenated fungus of Michigan.—Schoolcraft. With a drawing.

11. A suite of specimens, from the falls of Ohio; consisting of madreporites, favosites, terebratulites, cardites, &c., in lime-stone; with a marine turbo-shell, derived from a mass of secondary sand-stone, weighing perhaps 1000 pounds.—Haynes.

12. A series of the rare and splendid specimens from Lockport, New-York; consisting of—

A. Fossils.

(*a*) Encrinites, in calcareous rock.

(*b*) Four of the very peculiar productions known to the people by the name of petrified black walnuts; supposed, from the regular tetragonal and pentagonal lines on their surfaces, and the small indentions here and there, to have been echrinuses, or sea urchins, of an extinct race. Other conjectures are entertained about them; such as, that they are specimens of the crinoidea, or lily-shaped animals, found in the rocky ridge of Lockport, New-York. They belong to the new genus called (in the Journal of the Academy of Natural Sciences, vol. iv. p. 289) caryocrinites.

B. Minerals.

(*a*) Translucent gypsum.

(*b*) Transcendant dog's-tooth spar.

(*c*) Combinations of the two, in superior style.

(*d*) Anhydrous sulphate of strontian.

(*e*) Sulphate of strontian.

(*f*) Beautiful fluate of lime, in pale pellucid cubes, &c. —Johnson.

N° VII.

The seventh Shelf.

1. A silico-argillaceous stone, from the shore of Plandome, Long-Island; containing impressions of cardites,

pectinites, and other oceanic relics: 25 miles east of this city.—W. Mitchill.

(*a*) Another specimen from the same place, chiefly pectinites and terebratulites, in a silico-argillaceous ground.

2. Anomites, pectinites, madreporites, and spirulites, in wacke. Castleton, Staten-Island.

3. Three samples of the remarkable rock from Corlaers Hook, lime and wacke, charged with large and distinct cardites, &c.; one side discolored, as if partly decomposed. —De Camp.

4. A parcel of pectinites, anomites, &c., in a brittle ferrugino-silicous earth; from the same curious district.

5. A large and sound oyster-shell, found at Greenwich Village, New-York, twenty-one feet below the surface.—D. Gelston.

6. Fragments of two deer's horns, found a small distance below the surface, in digging down Stuyvesant-street.

7. The mold, or core of a species of mya; from Corlaers Hook, seventh ward.

8. Molds, with shell adhering, of two pholases, found near Ridge-street, tenth ward, fifty feet below the original surface, bedded in white clay.—J. F. Delaplaine.

9. Oyster-shells, from the same stratum and depth.—Myself.

10. Fragments of clam and oyster-shells, from fifty feet under the surface. Brooklyn Heights, Long-Island.

11. An oyster-shell, with a madrepore adhering; thirty feet below the surface, on digging out the Navy Yard, Brooklyn; the cavity filled with clay resembling the animal.

12. Favosite, or madrepore; from Newburgh.

13. Distinct mark of a terebratulite. Newburgh, side-hill.

14. Singular impressions, apparently the head and snout of an unknown animal; in clay. Shawangunk, Ulster county, New-York.

15. Productus, or Anomia productus. Orange, New-Jersey, near the Springs.—Goble.

16. Terebratulites, myas, &c., thickly distributed through wacke. Freehold village, Greene county, New-York.—J. L. Platt.

17. Pectinites. Shelborne, New-York.

18. Fossil madrepore, strongly marked. Oxford, Chenango county. Probably of an extinct species.—Uri Tracy.

19. Fragments of argillaceous slate, taken from an excavation very near the river Hudson, not far north of Poughkeepsie village; containing peculiar characters of whitish upon a blackish base, with pyrites, strongly significant of organic remains.—Green.—Of what kind?

20. The memorable breccia, constituting the banks of the Mohawk River, some miles above Schenectady: water-worn pebbles, seeming to be of the sorts that are found on the sea-coast, but cemented in a way that excites full admiration from chemists and geologists; showing that inland waters, pro ratâ, operate very much like the floods of the ocean.

21. Mold of a spiral univalve shell, more than two inches long; from Adams' village, Jefferson county, New-York, where they are said to be frequent in lime-rock.

22. Rock from Coeymans town, Albany county, filled with shells, cardites, pectinites, entrochites, &c. (See the great slab, of which the present is a fragment, at the entrance door, more than three feet long and eighteen inches broad.)—R. Strong.

23. Brown oxyd of iron, containing entrochites and shells. Oneida county, New-York.—Gov. Clinton.

24. Black marble, sawed out and smoothed on three sides, and on the fourth displaying different sorts of shells. Kingston, Ulster county, New-York.—P. Wynkoop.

25. Lumachella marble, with one smoothed side to exhibit the shells. Esopus; same locality; very like that from Coeymans, though finer, and more nearly resembling

the half dozen specimens on Shelf No. IV., Articles 27, 28, 29, 30, 31, 32.

26. Organ-pipe madrepore, interspersed with pyrites; very characteristic and instructive. Head of Delaware River.

27. Various organic remains; consisting of entrochites, terebratulites, &c. Seneca town, Ontario county, 7 miles S. W. of Geneva village.—H. Post.—(For a spirulite of this collection, see Shelf V., No. 11, and seq.)

28. Madreporites, &c. in calcareous carbonate, with pyrites. Shore of the Cayuga Lake.—Heermans.

29. A very peculiar mytilite, more than two inches long, and nearly one inch and a half broad. Two miles south of Cayuga Lake.—Searing.

30. Terebratulas, &c. in argillite; fine specimen. Vernon, Sussex, New-Jersey, near the sources of the Wallkill.

31. Pectinites, of distinct character, in wacke. Twenty miles from the sea-shore, New-Jersey.

32. Cardites, in clay-slate; very entire. Fredonia, Chatauque county, New-York.—Patton.

33. Very distinct terebratulites, in hardened clay, or argillite. Madison county, New-York.

34. Cardiums, in white sand-stone. Cayuga county, New-York.

35. Various specimens of terebratulites, cardites, &c., from different places, to the amount of a dozen or more. Origin not distinctly marked, but believed to be properly arranged here.

36. Skull and horns of the North American rein-deer, or caribou; dug from the bank of the Racket River, near the 45th degree of latitude; leading to a belief that this inhabitant of the colder regions sometimes has penetrated to the southward of the river St. Lawrence.—Colonel S. Hawkins.

37. Mass of petrified shells, and impressions in carbonate of lime; from Kaatskill; characteristic of an elevated

range, parallel to the Hudson River, all the route from Esopus to Albany.—J. Pierce.

38. Lime-stone, abounding with shells. Crown Point, Lake Champlain, New-York.

39. Lime charged with shells; from the bank of Onion River, Burlington, Vermont.—Dr. J. E. Bliss.

40. A series of specimens, showing the geognostic formation between Hudson River at Glenns Falls, and the Northern Lakes.—Milbert and Garin.

41. A series of twenty specimens, primitive and secondary, showing the constitution and nature of the rocks at St. Johns, on the river Sorel; at Montreal and its vicinity; at St. Regis, up the river St. Lawrence, and some other localities.—Professor Andrew Ellicot.

42. An extensive and complete collection, amounting to more than fifty pieces of the specimens selected to display the geognostic and mineral formation from Buffalo to Lewistown; or in other words, to show the composition of the rocks between Lake Erie and Lake Ontario, along Niagara River; consisting, among other articles, of the following:—

(*a*) Pieces of the brittle shistic rock, underlaying the thick strata of fetid lime-stone at the cataract.

(*b*) Fragments of the superincumbent rock over which the water descends, and finally precipitates.

(*c*) Fetid lime-stone, associated with blende, or sulphuret of zinc.

(*d*) The blende reduced, by cleavage, to its primitive form.—Torrey.

(*e*) Six specimens of rhomboidal spar, mostly adhering to the aforesaid rock.

(*f*) Two specimens of dog's-tooth spar.

(*g*) Two specimens of calcareous carbonate, in cubes.

(*h*) Four of the whitish silicious nodules, found embedded in the lime-stone at the Falls; with crystals of quartz and calcareous carbonate.

(*i*) Three other similar articles.

(*j*) Black flint, broken out of the black lime-stone at Black Rock.

(*k*) Plastic clay, from Goat Island.

(*l*) Moss, with a portion of soil. Falls.

(*m*) Half a dozen specimens, giving indications of sulphur.

(*n*) Carbonate of lime changed to sulphate of lime; or in other words, lime-stone turning to gypsum.

(*o*) About twenty pieces of the gypsum found at the Falls; some amorphous and opaque white, and others lamellar and transparent; the former, when picked below the cataract, in small masses, called by the people, "petrified foam" of the water.

(*p*) Upwards of twenty specimens, chiefly ceratites (or cornuted madreporites), cardites, and some very singular forms; among which are an organ-pipe corallite, associated with pyrites, and penetrated by petroleum; the production called petrified buffalo's dung, &c. &c.

(*q*) Shells of unios, or fresh water mussels, from the bottom of the cataract; with a jaw-bone.

(*r*) Shells in rock. Falls of Genesee River.

(*s*) The singular whitish lime-stone; from Fort Holmes, the highest ground on the island of Michillimackinac; containing traces of shells.—J. B. Stevenson.

(*t*) Three specimens of dog's-tooth spar; from Put-in Bay, Lake Erie.—Douglas.

43. Half a dozen samples, from the falls of West Canada Creek, near Trenton, Oneida county. Curious articles, from a most romantic region.

N° VIII.

The eighth Shelf.

1. Six meteoric stones, or aërolites:

(*a*) One which fell near Aigle of Normandy, in France.—J. C. Cabell.

(*b*) One which descended at Stannern, near Iglau, in Moravia.—Schreibers, 1808.

(*c*) Four of those which were precipitated in Weston town, Connecticut, in 1813. Middlebrook, Blakeman. —Brunson.

2. Obsidian, or Iceland agate; a volcanic production, from Hecla.

3. Obsidian from Sardinia.—Reynolds.

4. Pitch-stone porphyry; from Arran Island, Scotland.

5. The like; black variety; same locality.

6. Other obsidians.

7. Volcanic ashes, that fell on the deck of a vessel 60 miles from St. Vincent, during an eruption of the mountain on that island.

8. Volcanic ashes, gathered on the cliffs of Mollidor, 70 miles from the burning mountain of Arequipa, Peru.—H. Smith.

9. Polished pieces of lava, from Vesuvius.—V. Seaman.

10. A snuff-box of Ischian lava.—Destroimens.

11. Specimens of the volcanic stones which overwhelmed the city of Pompeii, in the sixty-fourth year of the Christian era.

12. A display of dross, cinders, pumice, stones, sulphures, sulphurets, sulphates, slags, and other igneous productions of Vesuvius; some of the lavas containing pieces of metal, forced into them while soft and flowing.

13. Pumice-stones, from several localities.

(*a*) From Rhene, or the smaller Delos, one of the Cyclades. Very light.—C. Rhind.

(*b*) From the extinguished volcano in the island of Martinico.—A. Anderson.

(*c*) From the Indian ocean, west of Sumatra.

14. Lava and slag from the Sandwich Islands, in the Pacific Ocean, in six specimens:

(*a*) One of which is said to be a fragment of the rock where Captain Cook was killed.

(*b*) Another, where his body was cut to pieces; and,

(3) A third, where the roasting was performed for the cannibal feast.

15. Six specimens of lava and volcanic scoriæ; from the plain of Mexico, and the neighbouring mountains.—General Wilkinson.

16. Pumice-stone, alleged to have been found in the Highlands of New-York; the original piece, of which the present is a fragment, was as large as a man's head, and floated in water.—T. B. Cooke.

17. Vitreous lava, from Hecla, Iceland.—S. Owens.

18. Sample of the volcanic rock forming the Island of St. Helena.

19. Lava from the banks of the river Rhine; of which the millstones from Cologne, heretofore used in New-York for grinding corn, and called by the Dutch settlers *Holland millstones*, were prepared. From the mills at Plandome.

20. A piece of the rock of which the Island of Madeira chiefly consists; rough volcanic substance, between slag and cinder; perhaps illustrating the cause wherefore the grape of the vine in that spot elaborates a juice on such an igneous base, as is unknown in every other place.

21. Samples from the Azores, or Western Islands in the Atlantic ocean.

(*a*) Lava from Fayal; and

(*b*) Sulphuret and sulphate of lime, from St. Michaels.

22. Lava, tufas, and other igneous productions, from the Peak of Teneriffe.—Perry, and Dey.

23. Volcanic sulphurs, or primitive brimstones; from Mount Vesuvius.

24. Articles of the like kind, amorphous and crystalized; some of them with an incipient association with lime. From the Salfatarra, near Naples. Diversified and instructive.

25. Sulphurets, with small admixtures; from Solfatarra.—R. Bayley.

26. Igneous sulphur, with calcareous sulphuret; from a spot in Java Island, 60 miles from Batavia. The crater is

nearly extinct, though a little vapour continues to be visible. The brimstone is still very abundant at the base of the mountain.—P. Lauman.

27. Sulphur, with accompanying gypsum, of Guadaloupe. Volcanic.—Maddiana.

28. Igneous sulphur, from the volcano of Guadaloupe. Neat production.—Maddiana.

29. Admirable mass of sulphur, from Etna, supposed to be pure.—Rafinesque.

30. An almost unexampled specimen of the sulphate of lime, a transparent gypsum; from the base of Mount Etna, at Palermo, in Sicily; more than two feet long, about ten inches wide, and one quarter of an inch thick.—Salter.

N° IX.

The ninth Shelf.

1. The preceding specimens of sulphur, being such as were formed in the dry way, or by means of fire or subterraneous heat. Here follow some which have been produced in the moist way, or by means of water.

(*a*) Native sulphur, from West Point, Orange county, New-York, not far from the Military Academy. The admixtures of foreign ingredients render it blackish, like an Ethiop's mineral.

(*b*) Sulphureous sediment, from the trough of a spring, three miles west of Athens village, New-York.—Seeley.

(*c*) Sulphureous depositions, in proper form, on moss and leaves; from the spring at Clifton, Phelpstown, Ontario county, New-York.—Adriance and Miller.

(*d*) Another sample of the deposit, after artificial evaporation; brimstone, leaves, &c., as they had consolidated in a cup.—The same.

(*dd*) A phial of the sediment, or solid matter, obtained by evaporating the water of the *Salt Sulphur Spring*, Monroe county, Virginia.—Dodge.

(*e*) A bottle containing sulphur, from the Clifton Springs, wherein there is a portion of unassociated or disengaged sulphuric acid.—Godon.

(*f*) A cornuted madrepore, bedded in the fetid limestone of the region, and overspread with the sulphur precipitated after the escape of the hydrogenous gas in which it had been dissolved while under ground. A specimen of thousands, overspread in like manner.

(*g*) The wooden case of a butternut, overspread with sulphur, of Clifton Springs. Interesting.

(*h*) Various favosites, madreporites, &c., from the same spot, though lying rather above the aqueo-sulphureous stream; or else the sulphur has been rubbed off during the transportation.

2. Sulphureo-calcareous sediment of the Canandaigua Spring, near the source of the lake so denominated; very much resembling that of Clifton, near Geneva. The water and its product, now inland, is in the town of Richfield, and county of Otsego, New-York.

3. Residue, after evaporating the water of the beforementioned spring by boiling. Probably a carbonate of lime, with a sulphate of magnesia?—Dr. H. Manley.

4. A bottle of the sulphureous water from Fredonia, Chatauque county, New-York.

5. A bottle of the ferrigino-sulphureous water, from a spring on the southern shore of Lake Erie, at the village of Dunkirk.

6. A horn, a solitary one, of the Wapiti deer, or North American elk; dug out of the sulphureous bog of Canan-derago, by Dr. H. Manley; showing the probability that this noble creature formerly inhabited the region east of the Mississippi, as the caribou perhaps, in ancient days, ventured southward of the St. Lawrence River.

7. North American fluates of lime, from five several places—to wit:

(*a*) From Patterson, Huron county, Ohio, in a ridge among the prairies, below the level of Sandusky Bay. Almost black.—F. Granger.

(b) From Cave-in Rock, Gallatin county, Illinois. Amber-coloured.

(c) With primitive rock, at Black-heath Coal-pit, Virginia.—Green.

(d) From some place in Missouri. Beautiful sample. —Morrell.

(e) From Huntington, Fairfield county, Connecticut; with quartz and gneiss. Pale purple.

For another locality, to wit, Lockport, New-York, see the five specimens on Shelf the Sixth, among the Minerals of the twelfth compartment. Glassy.

8. European fluates of lime; from Derbyshire and Cornwall, in England; to the number of about twenty specimens, of different hues, from hyaline to green; some elegantly crystalized, and some amorphous, and associated with blende, galena, barytes, &c.

9. A fossil bone, from the neighbourhood of Wilmington, Cape Fear, North Carolina; supposed to be the radius of some cetaceous animal, probably the balæna boops: length twenty-two inches, and very compact.

10. Three choice specimens of the sulphate of barytes, (or terra ponderosa,) with the sulphuret of lead, (or galena.) Derbyshire.

11. A tray, containing a dozen fine crystals of quartz.

N° X.

The tenth Shelf.

1. Three specimens of the coal slate, found in Providence Hill; abounding with impressions of ferns; two of them large.—D. Mauran.

2. Samples of coal found six miles north-west of Providence.—Barnes.

3. Large piece of the coal slate, abounding in ferns, overlaying the coal formation of Rhode-Island.

4. Fragments of the coal itself; *(a)* pure, and resembling Kilkenny coal, for brewers' use.

(*b*) Associated with quartz.

(*c*) Connected with asbestos.

5. Solid bitumen from Trinidad; various masses.

6. A set of specimens from the shore of New Spain, south of Vera Cruz, of the glassy bituminous kind. Masses are cast on shore by the waves. They contain sponges, and other productions of the sea; break with a shining and vitreous fracture, and emit a very strong bituminous odour; leading to a belief that this singular substance had been prepared by the sub-marine fire of some volcano at the bottom of the Mexican Gulf.

7. A fine specimen of mineral coal, exhibiting the fibrous and other appearances of charcoal from wood.

8. Solid bitumen, from Cape St. Antonio, west end of Cuba.

9. Solid bitumen, in a tin box, taken from the back of an ancient Babylonian brick, (an article of my antiquarian collection,) brought from Bussorah, by Captain Henry Austen.

10. Modern bitumen, from some spot between the Tigris and Euphrates, where the earth continues to this day to afford it.—Austen.

11. Compact bitumen, from Fort Stevens, Alabama.

12. A compartment of mineral coal specimens, from Lancashire, Wales, Scotland, and Ireland; but more especially from the Glance formation in Pennsylvania of the Lehigh and Schuylkill varieties: some of them beautifully iridescent. (For the overlying and incumbent slate, see Shelf IV., No. 1, *a*, *b*, *c*, &c.)

13. A large West Indian bean, or seed, found in a stratum of Lancashire coal. England.

14. A suite of specimens, showing the constitution of peat and turf; from various localities around New-York.

15. A series of lignites, or samples of wood blackened by brimstone, pyrites, or sulphuric acid; from several

localities around, and from the depth, in some instances, of fifty feet, and even more.

16. A row of plumbago and graphite specimens.

17. A range of pyritical productions, frequently associated with the lignite, or mineralized wood. Many of the original pieces have crumbled down by decomposition, and some of these give indications of changing to copperas and alum.

18. Several specimens of adipocire, or fossil fat:

(*a*) Mineral tallow, white and compact; found at Cataraugus, Chatauque county, New-York, four miles and one half south of Lake Erie, at the depth of about four feet, by a person digging a well on the declivity of a small hill, in somewhat marshy ground. The piece from which the two present samples were taken, was about two feet and a half long; and near it was discovered another, six feet long! 1817.—J. Hull.

(*b*) The lean of beef changed to fat, by long lying in the water of a well near Warren-street, New-York. 1819.

(*c*) The fatty matter into which a woman was converted, after lying in the grave thirty-three years. The discovery was made by the disinterment necessary for the improvement of the city at the North Park, east end of the Institution.

(*d*) Factitious adipocire.

19. American copal, as dug out of the ground in Costa Rica and Guatimala; some of the pieces containing very neat and perfect forms of insects.

20. Spunk of the pine and other trees.

21. A singular kind of mineral resin, variegated with brown and yellow; found near Guayaquil, and conjectured to be a new kind of fossil bitumen; probably like the copal, the production of some tree.—Ridgeley—Foote.

22. Petroleum, from Medina county, Rocky River, Ohio, 40 miles from the nearest coal-mine, from a spring furnishing eight gallons a day.—J. W. Clark.

23. Half a dozen ferruginous articles:

(*a*) From the Queen's mine in Mexico.

(*b*) From St. Blas, in Brazil.

(*c*) From the Highlands, New-York.

(*d*) Ramapo, New-York.

(*e*) Resembling a mastodon's tooth ; from Plandome.

(*f*) Pyrites, beautifully crystalized on slate.

24. A suite of the scapulite specimens, with pyroxyne of a green colour ; both crystalized. Orange county, New-York.

25. Granular pyroxyne, of a green hue, in flesh-coloured carbonate of lime. Orange county, New-York.

26. Mispickel, or arsenical pyrites ; large lump. Warwick, Orange county, New-York.

27. White pyrites, or arseniated iron ore, very much like the preceding. Larger specimen. Kent, Putnam county, New-York.

28. Glittering galena, or sulphuret of lead with quartz. Large piece. Northampton, Mass.

29. Fantastic nodule of flint, from a chalk-pit in the south of England ; mistakenly supposed by some to be a petrified human os innominatum.

30. Surface of four inches by seven, covered with quartz crystals. Stafford Springs, Connecticut.

31. Fine large sample of cyanite. Massachusetts.

32. Curious geode, found near the Wachita River ; supposed by the finder erroneously to be the petrified skull of a buffalo ; belongs really to the argillaceous septarias. As the specimen had been broken, a part of it was lost in moving.

33. Large concave specimen of crystalized hæmatite, or iridescent iron ore.

34. Three different samples of American serpentine. New-Haven.

35. Five polished specimens of steatitic serpentine ; two of them beautiful, diversified with arborescent stains, or figures resembling trees in leaf at a distance. Near Corlaers Hook, in the city of New-York.—Akerly.

N° XI.

The eleventh Shelf.

1. Fine stalactite, or aqueous carbonate of lime; from a cave in Bermuda.

2. Nullipore, or polypier without orifices. Neighbouring sea.

3. Lenticular gypsum. France.

4. Lamellar gypsum. Nova-Scotia.

5. Milk-white gypseous alabaster. Bay of Fundy.

6. Three specimens of tripoli, or scouring stone; two from Louisville, Kentucky.

7. Two small specimens of basaltes; the larger six inches in length, and nearly three in breadth; one a hexagon, and the other a pentagon. St. Croix.

7. Macle. Northampton, Mass.

8. Hexagonal mica. Highlands.

9. Coccolite in spar. Ticonderoga.

10. Seven specimens of polished serpentine; white, black, dark green, pale green, yellow, red, &c.; from several localities; one elegant one from Dagget's quarry, New-Haven.

11. Polished specimen of the native magnesia, from Hoboken.

12. Half a dozen specimens of the rocks from Arendal, in the southern region of Norway; showing their primitive constitution of quartz, horn-blende, feld-spar, &c.; and allowing comparisons to be made with the primordial rocks in our own country.

13. The stony production from the S. W. Coast of New Holland, called the petrific region; which has been, without full evidence, denominated a petrified serpent.

14. Two specimens of smoothed marble, with cardites and entrochites.

15. A mass of steatitical clay.

16. A large and complete crystal of factitious alum.

17. Menilite; very fine. France.—Haüy.

18. Elegant zeolite. Ferro.—Owens.

19. Curious geode. Mexico.—Del Rio.

20. Flexible amianthus. Peru.—Tafur.

21. Quicksilver, with silver (mercure argental), on lithomarge, or stone marl. Idria.—Haüy, with his own label.

22. Cobalt, in crystals. Tunaberg, Sweden.—Haüy, in his proper handwriting.

23. Circone of Ceylon, in crystals.—From the same.

24. Staurotide.—The same.

25. An oblong mass of sea salt, or muriate of soda, crystalized upon the branch of a tree; weighing ten pounds. Turks-Island.

26. A superb flabellaria, one of the coraline family, bearing on its surface various other productions, such as the polype, lepas, sponge, several species of asterias, &c. Bottom of the sea, near Curaçoa.—J. Mitchell.

27. An imitation of the human skull, upon the model of the celebrated Gall; in gypsum; showing, by the compartments of the brain, the different seats of passion and intellect, and indicating the principles of craniology, now termed phrenology.—F. Cooper.

28. Beside it, by way of comparison or contrast, the real skull of an American indigene, from the plain of Montevideo, in South America, well bleached, and exhibiting some peculiarities worthy to be examined by the anatomist. —R. B. Storer.

29. A tin box, containing fragments of the bones belonging heretofore to mammiferous animals, disinterred at Nyack, Rockland county, New-York, from a stratum of loam underlaying a mass of red sand-stone, eight feet thick, upon which was superimposed a cover of arable soil, four feet deep. Many more pieces have been dug out by the workers of the quarry.——J. Smith——G. Delavan——S Youngs.

30. Serpentine running into asbestoid. New-Haven.

31. Carbonate of lime, crystalized in parallel fibres, very much like some of the Gibraltar specimens. From Curaçoa. The interest of a mass as large as an infant's head, is increased by the perforation it shows of the borers and piercers of rocks.

32. Specimen of a water-worn stone, three inches long, two inches wide, and about half an inch thick; containing molluscous relics in abundance, chiefly bivalves, with their edges to the exterior surface, some broad-sides. North-west Coast.

33. Samples of the white crystalized primitive marble of Eastchester, 20 miles from this city, of which the huge columns of the Exchange consist. The quarry affords masses one hundred feet long, compact and entire.

34. Two teeth of the fossil animal at Skiddaway Island, Georgia; on which a judgment was formed that they belonged to the unknown and extinct megatherium, as announced in the Annals of the Lyceum, vol. i. p. 58 and 61, with figures; and continued by Mr. Cooper, ibid. p. 114 and 124, with plates.—A. Taylor.

N° XII.

The twelfth Shelf.

1. Crystalized stalactite, from a cave distant two leagues from Marseilles, in France. The present specimen was taken from a natural pillar, about three miles from the entrance; the whole extent being nine miles.—A. Imbert.

2. Sulphuret of zinc (blende), of iron (pyrites), and of lead (galena), associated with crystals of quartz. Shawangunk.

3. Syenite of quartz, shoerl, and feldspar. Plandome.

4. Iron ores of Elba:

(*a*) Oligistic oxyd, in beautiful plates, and with iridescent hues.

(*b*) Yellowish sulphuret, in cellular squares, with quartzy crystals.

5. Black and yellow marble, from Upper Egypt.

6. Cloudy agate, resembling petrified wood.

7. Various specimens of variegated wacke, bituminous shale, &c.

8. Stalactite, from Madison's Cave, Vir.—Van Ness.

9. French chalk, or craye de Briançon.

10. Factitious substance, resembling pumice; from Allaire's Iron-works, Egg Harbour.

11. Steatite, from Orford, high up Connecticut River; of which stoves and fireplaces have been made.—Quincy.

12. Kelp, from Falkland Islands, from the burning of sea-weeds.—McKay.

13. Several other things.

ADDENDUM.

☞ Paragraph omitted from the *Third Shelf.* Strike out No. 24, and insert the following:—

24. THIRTEEN specimens, some compressed, others perfectly shaped; a few fractured, the greater part entire; certain of them naked, the rest with their matrix adhering. From Kentucky. They had been received by the donor before the year 1810; and had been particularly noticed, as exceedingly singular relics, in Mitchill and Miller's Medical Repository, vol. xi. p. 415. Is the pentremite which is latterly considered as having given rise to the family blastoidea. Of the several species belonging to the genus pentremite, the Kentucky fossil, is the pentremites florealis.—Brown.—(Acad. Nat. Sciences, vol. iv. p. 295.)

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